UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,013	02/01/2006	Jean-Emmanuel Berge	17102024001	9427

22511 7590 05/14/2008

OSHA LIANG L.L.P.
1221 MCKINNEY STREET
SUITE 2800
HOUSTON, TX 77010

EXAMINER	
BOES, TERENCE	
ART UNIT	PAPER NUMBER
3682	

NOTIFICATION DATE	DELIVERY MODE
05/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@oshaliang.com
buta@oshaliang.com

Office Action Summary	Application No.	Applicant(s)	
	10/567,013	BERGE ET AL.	
	Examiner	Art Unit	
	TERENCE BOES	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/01/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to as there are no headings.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Claim Objections

2. Claims 2, 14 and 20 are objected to because of the following informalities:

- The recitation “one anchor projection" in claim 2 should recite "said anchor projection"
- The recitation “…a fixing device a stop element…” in claim 20 appears to be a typographical error of --a fixing device and a stop element--.

Appropriate correction is required.

3. Claim 14 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *should refer to other claims in the alternative only*. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The claims are replete with grammatical errors and indefinite language to numerous to list in their entirety. What follows are a few examples. The examiner suggests rewriting the claims to correct for grammatical errors and indefinite language.

Claims 2, 5 and 8 recite the limitations "each anchor projection" in line 2. There is insufficient antecedent basis for these limitations in the claims. The examiner notes

there is only antecedent basis for a single anchor projection whereas the term “each” implies multiple anchor projections.

Claims 2 recites the limitations "each retaining projection" in lines 2, 3 and 4 respectively. There is insufficient antecedent basis for this limitation in the claim. The examiner notes there is only antecedent basis for a single retaining projection whereas the term “each” implies multiple retaining projections.

Claim 3 recites "...its free ends...", rendering the claim indefinite. The recitation is unclear as to what the term "it" is referring to.

Claim 4 recites “…retaining claim cooperates…” rendering the claim indefinite. Is applicant attempting to claim --retaining clip cooperates--?

Claim 4 recites the limitation "the relevant anchor projection" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the relevant retaining projection" in line4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites “a concave axial bearing surface”, rendering the claim indefinite. The drawings clearly show a ***convex*** (emphasis added) surface. Is applicant intending to claim a convex surface?

Claim 6 recites the limitation "the axial bearing surface" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the distal part" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 9 and 10 (which depends from 9) both recite “at least one clamping element”, rendering the claims indefinite. Is applicant attempting to claim multiple clamping elements, or is the claim terminology duplicative.

Claim 10 recites the limitation "the relevant stop element" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "each clamping element" in line 2. There is insufficient antecedent basis for this limitation in the claim. The examiner notes there is only antecedent basis for a single clamping element whereas the term “each” implies multiple clamping elements.

Claim 12 recites the limitation "the clamping elements" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the same side wall" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the recess" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-8, 15 and 20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiah US 5,929,588 in view of Cupp et al. US 4,127,911.

Shiah discloses:

- A gear (44)
- A magnetic ring (64)
- the magnetic ring is open (see hole through 64) and in that it comprises, on the one hand,.

Regarding claim 20,

- a gear (44);
- a multipolar magnetic ring (64), wherein the multipolar magnetic ring is supported by the gear (see figure 4)
- wherein the gear is configured to engage the anchor projection with a coupling direction essentially parallel to the plane of the gear, wherein the at least one retaining clip is configured to engage the retaining projection with a coupling direction essentially perpendicular to the plane of the gear (The device of Shiah in view of Cupp et al. is capable of performing this function).

Shiah does not disclose a clipping mechanism.

Cupp et al. teaches clipping mechanism for the purpose of detachability (C1/L15-20, C2/L25-30).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Shiah and provide clipping mechanism, as taught by Cupp et al., for the purpose of detachability.

The clipping mechanism of Cupp et al. further comprises:

- at least, one stop element (25), which can engage with an anchor projection (43) with a coupling direction essentially parallel to the plane of the gear (the device is capable of this function),
- at least one retaining clip (34-36), which can engage, after elastic deformation, with a retaining projection (44), with a coupling direction essentially perpendicular to the plane of a gear (the device is capable of this function)
- each anchor projection (43) and each retaining projection (44) is fixed to a same side wall (42) and in that each retaining projection is positioned essentially opposite at least one anchor projection (43 is opposite 44)
- two anchor projections (any two of 43, 35, 46), each of which is respectively fixed to each of its free ends (flanges are free ends) and, on the other hand, a retaining projection (44 is equidistant from 45 and 46) positioned essentially at the same distances from said anchor projections
- each stop element (25) is able to exert an essentially axial pressure stress on the relevant anchor projection (the device is capable of this function), while each retaining clip (34-36) cooperates with the relevant retaining projection (34-36 cooperate with 44)

- each anchor projection comprises an axial bearing which is tilted downwards (see 47 in figure 4) .
- each stop element (25) comprises a concave axial bearing surface (see figure 4, walls 30 and 31 form a concave axial bearing surface), and in that the axial bearing surface of each anchor projection (47 is flat as can be seen in figure 4) is essentially flat.
- the height of each anchor projection () is essentially lower than the height of the magnetic ring (the height of 43 is shown lower at the left side in figure 4), and in that said anchor projection is fixed to a bottom (42 is shown at the bottom of 12).
- the distal part of each anchor projection is beveled (see radii of 4 corners of 42 in figures 1 and 2)
- wherein each stop element (25) is made at the end of a recess (26, see figure 1) which can guide the engagement of the relevant anchor projection while the magnetic ring is tilted in relation to the plane of the gear (the device is capable of the claimed function)

Regarding functional language, the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The reference discloses all claimed structural limitations and therefore anticipates the claim. See MPEP 2114.

7. Claims 9-13, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiah US 5,929,588 in view of Cupp et al. US 4,127,911 as applied to claim 1 above, and further in view of Grass US 6,703,732.

Shiah in view of Cupp et al. discloses the claimed invention as discussed above. Shiah in view of Cupp et al. does not disclose a radial clamping element or a guiding lip. Grass teaches a radial clamping element (see portion of gear 14 radially outward of magnet 26 in figures 2-4) and a guiding lip (see portion of gear 14 radially inward of magnet 26 in figures 2-4). Because both Shiah in view of Cupp et al. and Grass teach attaching magnets to gears, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a radial clamping element and a guiding lip to achieve the predictable result of attaching magnet to a gear.

The clamping element of Grass further comprises:

- an elastically deformable outgrowth (the portion of gear 14 radially outward of magnet 26 in figures 2-4 is elastically deformable)
- wherein the clamping element(s) are evening distributed (as best understood, the magnet 26 is evenly distributed)

8. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiah US 5,929,588 in view of Cupp et al. US 4,127,911 as applied to claim 1 above, and further in view of Godfrey et al. US 6,28,,825.

Shiah in view of Cupp et al. discloses all of the claimed subject matter as described above. Shiah in view of Cupp et al. does not disclose beveled edges.

Godfrey et al. teaches beveled edges (506, C10/L10-20) for the purpose of securely holding a magnet within a locking member (C10/L10-20).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Shiah in view of Cupp et al. and provide beveled edges, as taught by Godfrey et al., for the purpose of securely holding a magnet within a locking member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. B./
Examiner, Art Unit 3682
5/5/08

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3682